

Notice of Allowability

Application No.

10/723,888

Examiner

Arnel C. Lavarias

Applicant(s)

YAMADA ET AL

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/6/06.
2. ☒ The allowed claim(s) is/are 2, 13-14 (renumbered 1-3).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

1. The cancellation of Claims 3-12, 15 in the submission dated 4/6/06 is acknowledged and accepted. In view of these amendments, the rejections in Sections 11-18 of the Office Action dated 12/6/05 are respectfully withdrawn. Further, the objections to the claims in Section 9 of the Office Action dated 12/6/05 are respectfully withdrawn.

Allowable Subject Matter

2. Claims 2, 13-14 are allowed.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

Claim 2 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest an optical pick-up apparatus, as generally recited in Claim 2, the optical pick-up apparatus including, in combination with the features recited in Claim 2, the polarization directions of the laser lights in the two wavebands being orthogonal with each other on a position on which the laser light is incident on the diffraction grating, and a half waveplate being arranged between the diffraction grating and the light source so as not to have an effect on a polarization direction for the second polarization directional laser light and so as to change a polarization direction for the first polarization directional laser light.

Claim 13 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a semiconductor laser apparatus, as generally set forth in Claim 13, the semiconductor laser apparatus including, in combination with the features recited in Claim 13, an optical axis conversion mirror with a half wavelength plate for changing a polarization direction for laser light in one of wavebands, and a polarization diffraction grating having polarization characteristics by which diffraction efficiency for laser light in an predetermined first polarization direction is greater than diffraction efficiency for laser light in a second polarization direction orthogonal to the first polarization direction.

Claim 14 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a semiconductor laser apparatus, as generally set forth in Claim 14, the semiconductor laser apparatus including, in combination with the features recited in Claim 14, an optical axis conversion mirror with a half wavelength plate for changing a polarization direction for laser light in one of wavebands, and a hologram for diffracting reflected light of laser light transmitted in one direction into a direction of the light-receiving element, the hologram having polarization characteristics by which diffraction efficiency for laser light in a predetermined first polarization direction is greater than diffraction efficiency for laser light in a second polarization direction orthogonal to the first polarization direction.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany

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the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6195315 to Takahashi et al.

Takahashi et al. is being cited to evidence an optical pick-up apparatus and semiconductor laser apparatus (See for example Figure 6) similar to the recited invention. However, Takahashi et al. lacks the polarization directions of the laser lights (See 1 in Figure 6) in the two wavebands being orthogonal with each other on a position on which the laser light is incident on the diffraction grating (See col. 14, lines 18-34), and the half waveplate (See 4 in Figure 6) being arranged between the diffraction grating and the light source so as not to have an effect on a polarization direction for the second polarization directional laser light and so as to change a polarization direction for the first polarization directional laser light (See col. 14, lines 18-34). Additionally, Takahashi et al. lacks an optical axis conversion mirror with the half wavelength plate for changing a polarization direction for laser light in one of wavebands.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias
Patent Examiner
Group Art Unit 2872
4/14/06